

CODEx ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda item 7

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEx COMMITTEE ON FRESH FRUITS AND VEGETABLES

21st Session

PROPOSED DRAFT CODEx STANDARD FOR YAM

Prepared by the Electronic Working Group chaired by Costa Rica and co-chaired by Ghana

Codex Members and Observers wishing to submit comments at Step 3 on this draft should do so as instructed in CL 2019/65-FFV available on the Codex webpage/Circular letters 2019:

<http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>

I. BACKGROUND

1. The Codex Committee on Fresh Fruits and Vegetables (CCFFV), at its 20th meeting¹, held in Kampala, Uganda 2017, agreed to establish an EWG chaired by Costa Rica and co-chaired by Ghana, working in English and Spanish; to prepare, subject to the approval of the Codex Alimentarius Commission, the proposed draft standard for yam for distribution; in order to collect comments at Step 3 for consideration at its next meeting.
2. The Commission at its 41st session (2018)², approved the proposal for new work.
3. The EWG was attended by 23 members, which are listed in Appendix 2 of this document.
4. The EWG began its deliberations through the first draft of the proposed standard, distributed to the members of the EWG in January 2018, with a deadline to send comments on March 2, 2018, in which observations were received from 6 member countries. Likewise; the draft for the second round of comments was distributed on April 30 with a deadline to send comments on May 30, from which observations were received from 5 countries.

II. MAIN ISSUES DEBATED IN THE EWG

5. On the basis of the observations and suggestions received from the members of the EWG during the two rounds of comments, similar concerns are expressed regarding: minimum requirements, provisions regarding sizing, uniformity, origin of produce, name of produce and commercial specifications, which are detailed below. Also, general observations that were adjusted to the model of the Codex standards for Fresh Fruits and Vegetables.

3.1 Minimum requirements

6. One member suggests replacing the term ~~horizontal~~ by the term "**transversally**" so that it reads: "*be intact; however, the yam can be cut **transversally**...*". The proposal was received successfully, because it is considered the correct term.

7. One member proposes to delete the phrase "~~provided that the cut surface is sufficiently cured and does not lead to more than 5 mm of unusable pulp~~" since there is no scientific justification for determining what size should be the area of the cutting surface. Because there is no evidence to include the aforementioned parameter, it is proposed to delete the phrase in question as proposed.

3.2.1 "Extra" Class

8. Some members propose to delete from this section the phrase "~~Yams should be practically free of sprouting~~", because this defect is already considered within the minimum requirements, therefore, it applies to all classes. Said proposal is considered appropriate, which is why it is modified in the proposed standard.

¹ REP18/FFV, para 71(i)

² REP18/CAC, para 66 and Appendix VI

9. Some members propose to replace the phrase "~~cut or cured surfaces~~" with the phrase "**surfaces with scarred wounds** ..." because, in the yam superficial wounds that have healed due to a natural cure can be seen. Therefore, it is considered appropriate to replace the proposed phrase.

4. Provisions concerning sizing

10. One member suggests that the table corresponding to this classification be established according to commercial practices and that it be included optionally. Although the table is kept in the body of the document, it is considered appropriate to include it optionally.

11. Some members consider that the code corresponding to the sizes is appropriate in letters, which is why it is recommended to accept the proposal.

5.1.1 "Extra" class

12. One member proposes to delete the phrase "~~Within this tolerance, one percent of yams affected by rot, soft rot and / or internal decomposition will be allowed~~". In the same sense, another member considers that, an extra class production should not be affected by any rot. They also consider that it is not convenient to include the crossed-out text due to the implications of marketing products with rot. They add that the presence of rot is due to inadequate postharvest handling practices and that the acceptance or not of these damages is part of the client - supplier agreements, which cannot be defined in a quality standard and that the rot should not form part of the requirements of a quality and safety standard. Therefore, and following the discussions held in previous meetings of this Committee on the subject, the EWG considers that this issue requires further discussion in the plenary of the 21st session of the CCFFV.

6.1 Uniformity

13. One member proposed to include the following paragraph: **However, a yam mixture of <species> <varieties> <commercial types> <distinctly different colors> can be packaged in a package provided they are uniform in quality and, for each <species> <variety> <commercial type> <color> according to the origin.** In this respect and due to the comments received in section 7.1.2, further discussion is recommended in the plenary of the 21st session of the CCFFV.

7.1.2 Origin of Produce

14. One member proposes to delete the following paragraph: "~~In the case of a mixture of clearly different varieties of consumption yams from different origins, the indication of the country of origin shall appear next to the name of each variety~~". It does not recommend including the mixture of yam varieties in the same container, because each variety has a different respiration rate and different storage conditions and this may benefit some varieties, but not others, which may result in as a result the damage of the set of yams contained. Therefore, and because this proposal is contrary to the proposal raised in section 6.1, further discussion is recommended in the plenary of the 21st session of the CCFFV.

7.2.2 Name of Produce

15. One member suggests removing the following text from this section:

~~• In the case of a yam mixture of clearly different <species> varieties, names of the different varieties <species>.~~ • ~~<species>, names of the different varieties <species>.~~ "Mix of yams, or an equivalent denomination, in the case of a clearly different mixture of commercial types and/or yam colors, because each variety has a different respiration rate and different storage conditions and it is possible that this benefit some varieties, but not others, which may result in damage to the set of yams contained. Therefore, and because this proposal coincides with the comments received in sections 6.1 and 7.1.2, further discussion is recommended in the plenary of the 21st session of the CCFFV. One member suggests that this section should provide some guidance on the common names of the different species covered by the standard, for example: white yam, yellow yam, big yam, small yam, etc. However, it is a subject that requires further discussion in the plenary of the 21st session of the CCFFV.

7.2.4 Commercial Specifications

16. Some members propose to include the phrase "net weight" because it is considered important information for the commercialization of the product and that, additionally, it is demanded by the buyer. Said recommendation is considered adequate.

III. RECOMMENDATION

17. The EWG recommends the CCFFV21 consider the proposed draft standard for yam, in particular (i) if a percentage of rot is included and what that percentage would be, in the extra class corresponding to section 5.1.1 of the provisions regarding tolerances and (ii) if the mixture of different varieties of yams is included in the same package in section 6.1 corresponding to homogeneity.

PROPOSED DRAFT STANDARD FOR YAM

1. SCOPE

The purpose of the standard is to define the quality requirements for yam after preparation and packaging. When applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- a slight deterioration due to their development and their tendency to perish.

The holder/seller of the product may not display such product or offer it for sale or deliver or market it in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

DEFINITION OF PRODUCE

This standard applies to tubers from commercial varieties of yam of the Dioscoreaceae family obtained from the species *Dioscorea rotundata*, *Dioscorea cayenensis*, *Dioscorea alata*, *Dioscorea esculenta* and *Dioscorea trifida*, to be supplied fresh to the consumer¹. Yams intended for industrial processing are excluded.

3. PROVISIONS CONCERNING QUALITY

3.1 MINIMUM REQUIREMENTS

In all classes, subject to the special provisions for each class and the tolerances allowed, the yams must be:

- intact; however, yam can be cut transversely provided that the cut surface is sufficiently cured;
- fresh in appearance;
- healthy; produce affected by rotting or deterioration such as to make it unfit for consumption should be excluded;
- firm;
- clean, practically free of any visible foreign matter;
- practically free from pests²;
- free from abnormal external moisture, excluding condensation following removal from cold storage;
- free from any foreign smell and/or taste;
- free from damage caused by low temperature or high temperature;
- practically free from sprouting;

The development and condition of the yam must be such as to enable them:

- to withstand transportation and handling; and
- to arrive in satisfactory condition at the place of destination.

3.1.1 Minimum Maturity Requirements

The yams must have reached an appropriate degree of development and/or maturity in accordance with criteria proper to the species, to the time of harvesting/picking, and to the area in which they are grown.

3.2 CLASSIFICATION

The yams are classified into three classes defined below:

3.2.1 "Extra" Class

Yams in this class must be of superior quality and with the characteristics of the variety and/or commercial type. They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

3.2.2 Class I

¹ The skin color of yams ranges from off-white to brown and dark brown. The flesh color of yams can be off-white, yellow, pink or purple. Some large yam tubers are also known to vary in color between the head and the tail.

² The provisions for pests apply without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).

Yams in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- Cuts or surfaces with scarred wounds, as long as they do not exceed 10% of the surface of the product;
- A slight defect in shape.

The defects must not, in any case, affect the pulp of yams.

3.2.3 Class II

This class includes yams that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified in section 3.1 above.

The following defects may be allowed provided that the yam retains its essential characteristics as regards the quality, the keeping quality and presentation in the package:

- cuts or surfaces with scarred wounds, as long as they do not exceed 20% of the surface of the product;
- defects in shape.

The defects must not, in any case, affect the pulp of yams.

4. PROVISIONS CONCERNING SIZING

Yam may be sized by weight or in accordance with existing trade practices. When sized in accordance with existing trade practices, the package must be labelled with the size and method used.

When sized by weight, size is based on the individual weight of each tuber or a weight range per package. The following table is a guide and may be used on an optional basis:

Size Code	Weight (range in Kg)
A	>1.5
B	>1- 1.5
C	>0.4 – 1
D	≤0.4

5. PROVISIONS CONCERNING TOLERANCES

5.1 QUALITY TOLERANCES

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated. Produce that fail conformity assessment, may be allowed to be re-sorted and brought into conformity in accordance with the relevant provisions in the *Guidelines for Food Import Control Systems* (CXG 47-2003).

5.1.1 Extra class

Five per cent, by number or weight, of yams not satisfying the requirements of this class but meeting the requirements of Class I. Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown.

5.1.2 Class I

Ten percent by number or weight of yams not satisfying the requirements of this class, but meeting those of class II. Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown.

5.1.3 Class II

Ten per cent by number or weight, of yams not satisfying the requirements of this class. Included therein, is 2% tolerance for decay, soft rot and/or internal breakdown.

5.2 SIZE TOLERANCES

For all classes, if sized, 10.0% by number or weight of yams not satisfying the requirements with regards to sizing.

6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The contents of each package must be uniform and contain only yams of the same origin, variety or commercial type, quality and size. The visible part of the contents of the package must be representative of the entire contents.

6.2 PACKAGING

Yams must be packed in such a way as to protect the produce properly. The materials used inside the package must be of food-grade quality, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Yams shall be packed in each package in compliance with the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables* (CXP 44-1995).

6.2.1 Description of Containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics necessary to ensure suitable handling, shipping and preserving of the yams. Packages must be free of any foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 CONSUMER PACKAGES

In addition to the requirements of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of Produce

Each package shall be labelled as to the name of the produce "yam" and may be labelled as to the name of the variety(ies) and/or commercial type.

7.1.2 Origin of Produce

Country of origin³ and, optionally, district where grown, or national, regional or local place name.

In the case of a mixture of distinctly different varieties of yams of different origins, the indication of the country of origin shall appear next to the name of the variety.

7.2 NON-RETAIL CONTAINERS

Each package must bear the following particulars in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

For yams transported in bulk (direct loading into a transport vehicle) these particulars must appear on a document accompanying the goods, and attached in a visible position inside the transport vehicle unless the document is replaced by an electronic solution. In that case the identification must be machine readable and easily accessible.

7.2.1 Identification

Name and address of exporter, packer and / or dispatcher. Identification code (optional)⁴.

7.2.2 Name of Produce

Name of the produce <name of the variety <and/or commercial type>(optional).>

7.2.3 Origin of Produce

Country of origin and, optionally, district where grown, or national, regional or local place name.

In the case of a mixture of distinctly different varieties or species of yams of different origins, the indication of each country of origin shall appear next to the name of the variety or species concerned.

³ The full or commonly used name should be indicated.

⁴ The national legislation of some countries requires an explicit declaration of name and address. However, in the case where a code mark is used, the reference to the "packer and/or dispatcher" (or equivalent abbreviations) has to be indicated in close connection with the code mark.

7.2.4 Commercial Specifications

- Class;
- Size expressed as
 - size range in kg or,
 - size code in accordance with the table in Section 4 or,
 - in accordance with the method used;
- Net weight.

7.2.5 Official Inspection Mark (optional)

8. CONTAMINANTS

8.1 The produce covered by this standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

8.2 The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

9. HYGIENE

9.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CXC 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003), and other relevant Codex texts such as codes of hygienic practice and codes of practice.

9.2 The produce should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG 21-1997).

Appendix 2

List of Participants

	Country	Delegate	Position	e-mail
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